CLAIMS:

1.   A spatial filter unit (200) for converting an input signal (U) comprising input samples, into an output signal comprising output samples, the spatial filter unit (200) comprising:

       - a coefficient-determining means (106) for determining a first filter

5   coefficient; and

       - an adaptive filtering means (104) for computing a first one of the output samples on basis of a first one of the input samples and the first filter coefficient, characterized in that the coefficient-determining means (106) are arranged to determine the first filter coefficient on basis of a further input signal (Y) being correlated to the input signal

10   (U).

2.   A spatial filter unit (200) as claimed in claim 1, characterized in that the coefficient-determining means (106) are arranged to determine the first filter coefficient on basis of the input signal

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3.   A spatial filter unit (200) as claimed in claim 1, characterized in that the adaptive filtering means (104) comprises computing means for computing the first one of the output samples on basis of interpolation of the first one of the input samples and a second one of the input samples.

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4.   A spatial filter unit (200) as claimed in claim 1, characterized in that the first input signal represents a first quantity and the further input signal represents a second quantity, being different from the first quantity.

25   5.   A spatial filter unit (200) as claimed in claim 4, characterized in that the first quantity is any one of luminance, chrominance, motion, location, temperature or sound.

6.   A spatial filter unit (200) as claimed in claim 5, characterized in that the second quantity is any one of luminance, chrominance, motion, location, temperature or sound.

5   7.   A spatial filter unit (200) as claimed in claim 1, characterized in that the coefficient-determining means (106) comprises a predetermined Look-Up-Table for translating data which is derived from the further input signal, into the first filter coefficient, the predetermined Look-Up-Table being obtained by means of a training process.

10   8.   A spatial filter unit (200) as claimed in claim 7, characterized in that the coefficient-determining means (106) is arranged to determine the first filter coefficient on basis of a number of luminance values belonging to the further input signal and that the adaptive filtering means (104) is arranged to compute the first one of the output samples on basis of a chrominance value belonging to the input signal.

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9.   A spatial filter unit (200) as claimed in claim 1, characterized in that the coefficient-determining means (106) are arranged to compute the first filter coefficient by means of an optimization algorithm.

20   10.   A spatial filter unit (200) as claimed in claim 1, characterized in being an image scaling unit for scaling an input image being represented by the input signal and the further input signal into an output image being represented by the output signal.

11.   A spatial filter unit (200) as claimed in claim 1, characterized in being a noise
25   reduction unit for converting an input image being represented by the input signal and the further input signal into an output image being represented by the output signal.

12.   An image processing apparatus comprising:
              - receiving means for receiving an input signal and a further input signal; and
30   - a spatial filter unit (200) for converting the input signal into an output signal, the spatial filter unit (200) as claimed in claim 1.

13.   An image processing apparatus as claimed in claim 12, characterized in further comprising a display device for displaying an output image being represented by the output signal.

5   14.   An image processing apparatus as claimed in claim 13, characterized in that it is a TV.

15.   A method of converting an input signal comprising input samples, into an output signal comprising output samples, the method comprising:

10   - determining a first filter coefficient; and
                - computing a first one of the output samples on basis of a first one of the input samples and the first filter coefficient, characterized in determining the first filter coefficient on basis of a further input signal being correlated to the input signal.

15   16.   A computer program product to be loaded by a computer arrangement, comprising instructions to convert an input signal comprising input samples, into an output signal comprising output samples, the computer arrangement comprising processing means and a memory, the computer program product, after being loaded, providing said processing means with the capability to carry out:

20   - determining a first filter coefficient; and
                - computing a first one of the output samples on basis of a first one of the input samples and the first filter coefficient, characterized in determining the first filter coefficient on basis of a further input signal being correlated to the input signal.